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Montana Science & Technology Alliance.



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Montana Science and Technology Alliance

Department of Commerce

1424 Ninth Avenue

Helena, Montana 59620

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Ted Schwinden, Governor
State of Montana

Board of R. Stephen Browning, Chairman
Directors: *Helena*

Jon Marchi

Polson

Leland Walker

Great Falls

Lloyd Allen

Billings

Keith L. Colbo

Helena

Richard C. Conover

Bozeman

Russell H. Hudson

Libby

James Erwin Jenks

Hogeland

Richard E. Johnson

Billings

James V. Koch

Missoula

Donald R. Peoples

Butte

C. Daniel Regan

Butte

William J. Tietz, Jr.

Bozeman

Staff:

Samuel T. Hubbard

Executive Director

Elinor W. Edmunds

Administrative Officer

An Introduction to the Montana Science and Technology Alliance

The Montana Science and Technology Alliance is a partnership of business, government and universities in Montana. The Alliance was established in 1985 by the Montana Legislature to help strengthen and diversify the state's economy through the development and application of innovative science and technology. The 15 members of the MSTA board of directors were appointed by Governor Ted Schwinden, while the Alliance is staffed by the Montana Department of Commerce.

Its capital base consists of state funds, appropriated by the Legislature, which the Board invests in projects that it believes have outstanding technological and commercial potential for the economic future of Montana.

The Alliance is a commitment to the innovative technology future of the state. It is designed to support a program of innovation which will solidify and expand — through technology research, development and commercialization — the business and industrial base of the state.

Investment Programs

The MSTA has four complementary investment programs offering funding assistance:

- **Research Capability Development** — Investments will be used to create new and strengthen existing in-state private sector-university cooperative research and development efforts.
- **Applied Technology Research** — Investments will be made in product development projects leading to eventual commercialization and production.
- **Technical Assistance and Technology Transfer** — Investments will be utilized to transfer technologies to new and existing concerns in order to improve economic productivity and profitability.
- **Seed Capital Investment** — Investments will provide financial leverage to encourage private sector seed capital investment for early stage financing for applied technology commercialization.

All programs, except Technical Assistance and Technology Transfer, require at least a dollar-for-dollar match with non-state appropriated funds.

Investment Criteria

Entrepreneurs, businessmen, researchers, industrialists, and educators are all encouraged to apply to the MSTA for funding support. Priority will be given to those projects which address targeted technology areas and which incorporate both advanced technology and plans for full commercialization. The target technology areas are:

- | | |
|---------------|---|
| ■ minerals | ■ materials science |
| ■ agriculture | ■ information services |
| ■ forestry | ■ biotechnology |
| ■ energy | ■ microelectronics and
computer sciences |

While the MSTA welcomes all proposals, the areas of greatest interest to the Board are projects that:

- are innovative technology based
- contain strong potential for stimulating new job development or job retention
- involve university participation
- add value to basic, existing business and industry in the state

Investment Process

The initial step in the investment process is for the prospective applicant to submit a two-page **executive summary** of their project. The summary should address the following items:

- description of the proposed project, including the product or process and the technology involved;
- analysis of its commercial potential;
- discussion of the feasibility and/or availability of private matching funds;
- estimate of total financing needs; and
- amount of funds requested from the Alliance, including the expected use of proceeds.

The summary should not include any proprietary or confidential information.

Upon receipt of the summary, the MSTA will schedule a meeting with the applicant to further discuss the proposed project and explain the Alliance's project proposal development process.

The next step in the application process calls for the applicant to submit a formal **proposal**. The proposal should contain the following information:

- Title page
- Executive summary
- Project objectives
- Background review
- Project design
- Facilities and equipment
- Commercial potential
- Economic impact
- Milestones
- Budget and use of proceeds
- Proposed return on investment
- Feasibility/availability of match
- Other funding efforts
- Historical financial information
- Resumes
- Technical reviewers

In addition, if the proposal is for funding under the seed capital investment program or anticipates eventual commercialization, a comprehensive **business plan** should also be submitted. The business plan should include:

- Executive summary
- Company history and business
- Product/technology description
- Market assessment
- Sales and marketing strategy
- Assessment of the competition
- Financial projections, including five-year P & L, balance sheet and cash flow statements
- Detailed resumes of management team
- Historical financial statements (balance sheets and P & L statements) if the company has been in existence for over one year.
- Manufacturing and/or operations plan
- Management and ownership
- Organization and personnel
- Funds required and their uses

Proposal Review Process

Upon receipt, the proposal will be subjected to a rigorous outside technical and financial review.

The MSTA Board of Directors meets quarterly and provides funding support on a selective basis for proposals deemed to have high levels of technical and economic significance. Investments are based on a rigorous evaluation of the technological and business merits of the proposals as well as on their relevancy to Montana's economy. Investment agreements are the usual mechanism for funding these proposals. All agreements require operations to be performed within the state of Montana and provide for a specified return on investment to the Alliance.

The MSTA investment process is designed to provide an equitable and thorough review of funding requests within a reasonable timeframe. The rigor imposed by the evaluation process tests the technical feasibility and commercial viability of each proposal, and, it is hoped, helps build a foundation for a high probability of success for the funded projects.

Return on Investment

The Alliance is required by statute to achieve a return on investment commensurate with its original investment plus the degree of risk involved. Due to the usual high risk and early stage nature of the projects considered, conventional financing is not typically available to the applicant. Accordingly, the Alliance expects to receive a rate of return of between seventeen and twenty-two percent, compounded annually.

The return to the Alliance is paid by the funding recipient as a percentage of gross sales (usually from one to five percent) once the project is commercialized. The board may also request a sales override position if it is deemed appropriate.

This return on investment policy differentiates the Alliance's technology investment from a loan or grant in two ways. First, there is no set payment schedule which commences upon the initial Alliance disbursement: all payments are instead triggered by sales levels. Second, the investment is not collateralized: if the company fails to realize sales there is no obligation to repay the Alliance.

Board of Directors

Stephen Browning, chairman of the board, is an attorney at law with the Helena law firm of Browning, Kaleczyc, Berry and Hoven. Mr. Browning brings to the board extensive legal experience as well as intimate knowledge of federal and state government, the former acquired while he served as chief of staff for Senator Max Baucus in Washington, D.C.

Jon Marchi, chairman of the board's investment committee, is a rancher in Polson. Prior to 1985, Mr. Marchi was vice president for marketing and administration for D.A. Davidson Co. in Great Falls. He brings to the Alliance considerable knowledge of private sector finance and investment analysis.

Leland Walker, chairman of the technology transfer committee, is the chairman of the board of directors for Northern Engineering and Testing, Inc., an engineering consulting firm located in Great Falls. He has extensive experience in engineering gained from both public and private practice. He also served as a member of the original Advisory Council on Science and Technology.

Lloyd Allen brings to the board experience in the chemical industry, both from his employment with Dow Chemical Company and currently as the development and marketing manager at Yellowstone International, Inc. in Billings. He is presently focusing on developing middle and far eastern markets for the "baladi bread" product developed by microbiologists at Montana State University.

Richard Conover, a lawyer in private practice in Bozeman, specializes in the intellectual property field, especially patents, copyrights and trademarks — all areas of prime importance in technology development.

Russell Hudson brings to the board his extensive knowledge of the forest products industry, acquired through many years of experience with timber companies in Montana. Currently he is the Libby operations manager for Champion Timberlands.

James Jenks is a successful farmer and rancher from Hogeland. He serves on U.S. Wheat Associates and on the Montana Wheat Research and Marketing Committee, including one year as chairman of each organization.

Richard Johnson is the chief chemist at the Billings office of O-Tech, Inc., a consulting firm specializing in petroleum and energy fields. He was also very active in the deliberations of the original Advisory Council on Science and Technology.

Daniel Regan brings to the board expertise in the areas of engineering and energy development. He serves as vice president of consumer services, conservation and industrial marketing for the Montana Power Company in Butte.

Keith Colbo is the director of the Department of Commerce in Helena. Besides his current experience, he brings to the board knowledge gained from numerous years of public service at the state level in Montana.

James Koch is the president of the University of Montana and brings to the board knowledge of the programs and assets available at the university.

Donald Peoples serves as the chief executive officer of the Butte-Silver Bow Government. His knowledge of the workings and needs of local government has proven invaluable to the board.

William Tietz is the president of Montana State University and brings to the board input of the considerable assets and wealth of programs available through the Montana University System as well as at MSU.

MSTA Staff

Samuel T. Hubbard has served as the executive director of the Alliance since its inception in 1985. He has seventeen years of service in the public sector at the state, regional and city level in Washington and Montana. Previous to his tenure at the Alliance, he held positions in Montana as the deputy director of both the Office of Budget and Program Planning and the Department of Commerce and as executive staff assistant to the director of the Department of Highways.

Mr. Hubbard graduated in 1968 from Whitman College with a bachelor of arts degree in history and in 1975 from the University of Washington with a master of public administration degree.

Elinor W. Edmunds has served as the administrative officer of the Alliance since September of 1985. She has four years of experience in the private sector and eleven years of experience in the public sector in program administration at the state and city level in Ohio and Montana.

Ms. Edmunds graduated in 1971 from Michigan State University with a bachelor of arts degree in communications and has completed graduate work in environmental management and public administration at Cleveland State University.

Technology Investments

ChromatoChem, Inc.

Missoula

High performance affinity chromatography

Development Corporation of Montana

Helena

Montana venture capital network

Western Energy Company

Butte

Coal beneficiation process engineering

Alternative Diagnostics, Inc.

Missoula

Diagnostic test kits for in-home use

Ercon Systems, Inc.

Great Falls

Erosion protection matting

GeoResearch, Inc.

Billings

Remote electronic animal data system

Montana International Trade Commission

Helena

Furniture manufacturing and marketing study

Writing Software International

Missoula

Personal publishing computer software

Montana State University

Bozeman

Digitized computer analysis of farming soils

Montana State University

Bozeman

Computer graphics and image analysis lab

University of Montana

Missoula

Domestic cultivation of huckleberries

Frontier Scientific Corporation

Bozeman

Computerized automation control systems

Bridger Bowl/Montana State University

Bozeman

Winter weather modification

Impulse Computer Systems, Inc.

Billings

Beverage inventory control computer systems

MSI Detoxification, Inc.

Bozeman

Microbial detoxification of chemical wastes

Wood Sciences Laboratory

Corvallis

Lodgepole pine flanges and flakeboard webs

Alternative Energy Resources Organization

Helena

Agricultural technology transfer conference

Three thousand copies of this public document were published at an estimated cost of forty-seven cents per copy, for a total cost of one thousand, four hundred dollars which includes one thousand two hundred dollars for printing and two hundred dollars for distribution.

For Further Information Contact:

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